DOCUMENT RESUME

ED 414 159 SE 060 646

AUTHOR	Laraba, Peter; Wickland, Thomas J.
TITLE	Educational Activities for the Life Over Time Exhibit at The Field Museum.
INSTITUTION	Field Museum of Natural History, Chicago, IL.
SPONS AGENCY	National Science Foundation, Arlington, VA.
PUB DATE	1994-00-00
NOTE	39p.; Text illustrations by Marlene Donnelly and Lori Grove.
AVAILABLE FROM	The Field Museum, Harris Educational Loan Center, Roosevelt Road and Lake Shore Drive, Chicago, IL 60605 ($3 plus $2.50 shipping).
PUB TYPE	Guides - Classroom - Teacher (052)
EDRS PRICE	EDRS Price MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS	Biology; *Dinosaurs; Earth Science; Educational Resources; Elementary Secondary Education; *Exhibits; History; Learning Strategies; *Museums; *Paleontology; Science Curriculum; Science Education; *Science Programs; Teaching Guides
IDENTIFIERS	Illinois; National Science Foundation

ABSTRACT

The activities presented in this book, designed to help 4th through 8th grade instructors teach about the history of life, help students prepare for a visit to a museum exhibit on life through time. The pre- and post-visit activities as well as the in-museum activities help students prepare for and enjoy their 4.5 billion year trip through time at The Field Museum in Chicago. Activities pertain to words from the past, developing a timeline, comparative anatomy, developing a museum visit journal, prehistoric bone structure, and prehistoric motion. Reading lists for both teachers and students are also included. (DDR)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 414 159

Educational Activities for the Life Over Time Exhibit at The Field Museum

PERMISSION TO REPRODUCE AND
DISSEMINATE THIS MATERIAL
IN OTHER THAN PAPER COPY
HAS BEEN GRANTED BY

A. Kasruba

TO THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC)

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

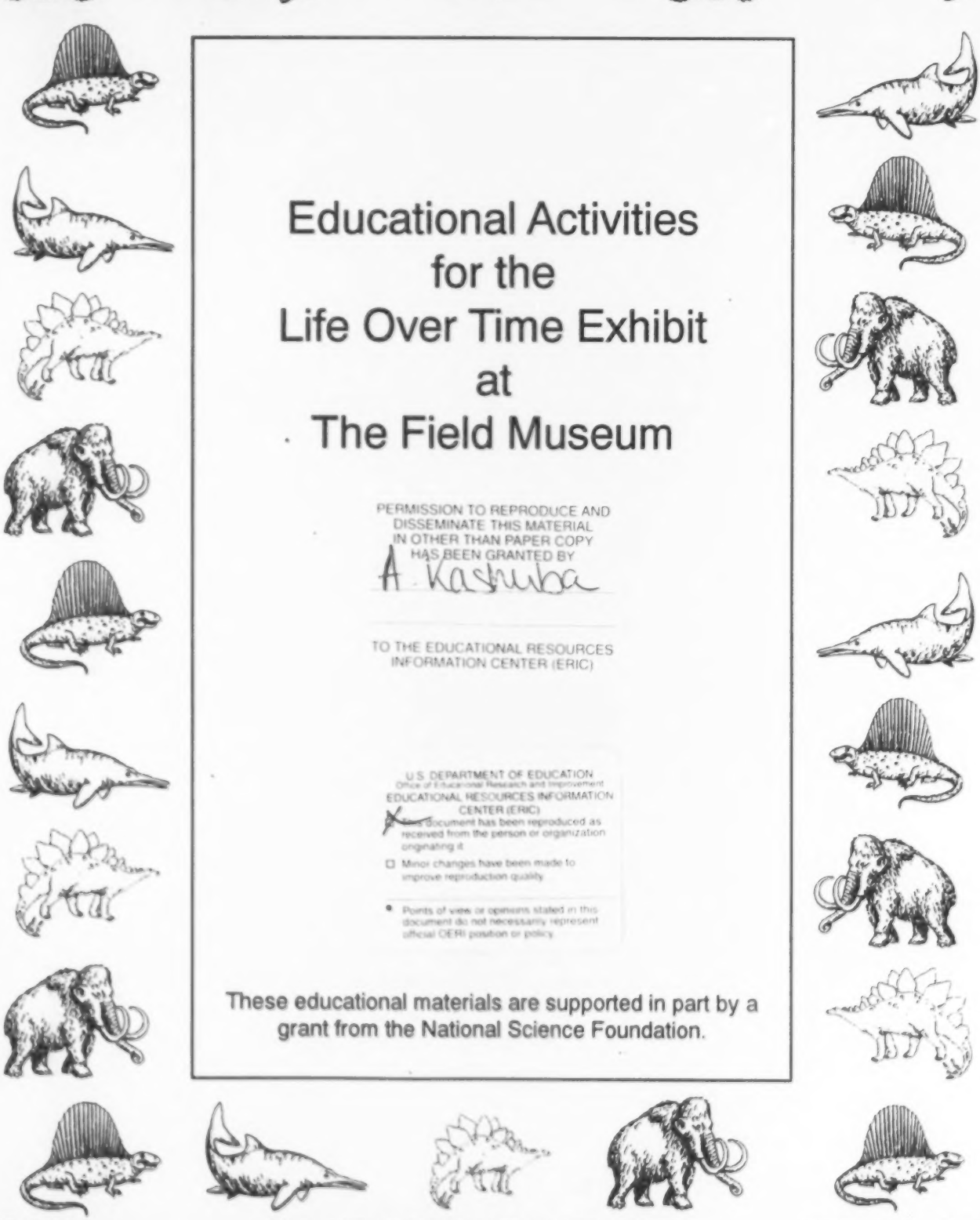
X This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

These educational materials are supported in part by a grant from the National Science Foundation.

SE 060646



BEST COPY AVAILABLE

CONTENTS

Words From The Past 1

Out Of Time 6

How Big Was That Animal? 8

Museum Visit Journal 14

Where Was That Fossil Found? 17

Old Bones And You 19

Prehistoric Motion 25

Read More About Life Over Time 30

In 1994 The Field Museum opened one of the world's largest exhibits about the development of life through time. This activity packet can help educators to teach about the history of life.

Students get more from their visit if they are focused on one topic or exhibit at the Museum. Being familiar with the exhibit material in advance of their visit and doing follow-up activities also adds to their positive learning experience. The pre- and post-visit activities as well as in-museum activities help students prepare for and enjoy the 4.5 billion year trip through time at The Field Museum.

Suggestions for other reading material can be found in "Read More About Life Over Time" at the end of this packet. For more information about educational materials, contact the Harris Loan Center at The Field Museum at (312) 322-8853.

This activity packet was developed by Peter H. Laraba and Thomas J. Wickland.

Text illustrations by Marlene Donnelly and Lori Grove.

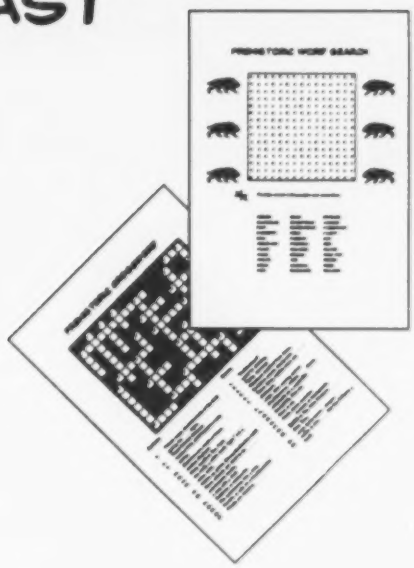
Special thanks for assistance and suggestions:

Carolyn Blackmon, Diane Deckert, Eric Gyllenhaal, Philip Hanson, Eunice Hoshizaki, Nancy Saulsbury and John Wagner

© 1994 The Field Museum Harris Educational Loan Center

1,500-PHL-10/94

WORDS FROM THE PAST



SKILLS

- Identification
- Labeling

IN BRIEF

Students complete a crossword puzzle and word search.

GOAL

To increase student vocabulary related to prehistoric life.

BACKGROUND

Many new terms are used in the Life Over Time exhibit that students may or may not understand. Introducing some of the words before their visit will help them understand the exhibit concepts.

MATERIALS

Copies of "Prehistoric Word Search" and "Prehistoric Crossword" for each student.
Pencils

DIRECTIONS

Before visiting the Life Over Time exhibit at The Field Museum, have the students complete the word search. Encourage them to define (look up or guess at) the meaning of unfamiliar words. After visiting the Museum, have them complete the crossword puzzle to reinforce their new knowledge.

FOLLOW UP

Have students develop their own crossword puzzles and word searches using terms and concepts they remember from their visit.

PREHISTORIC WORD SEARCH

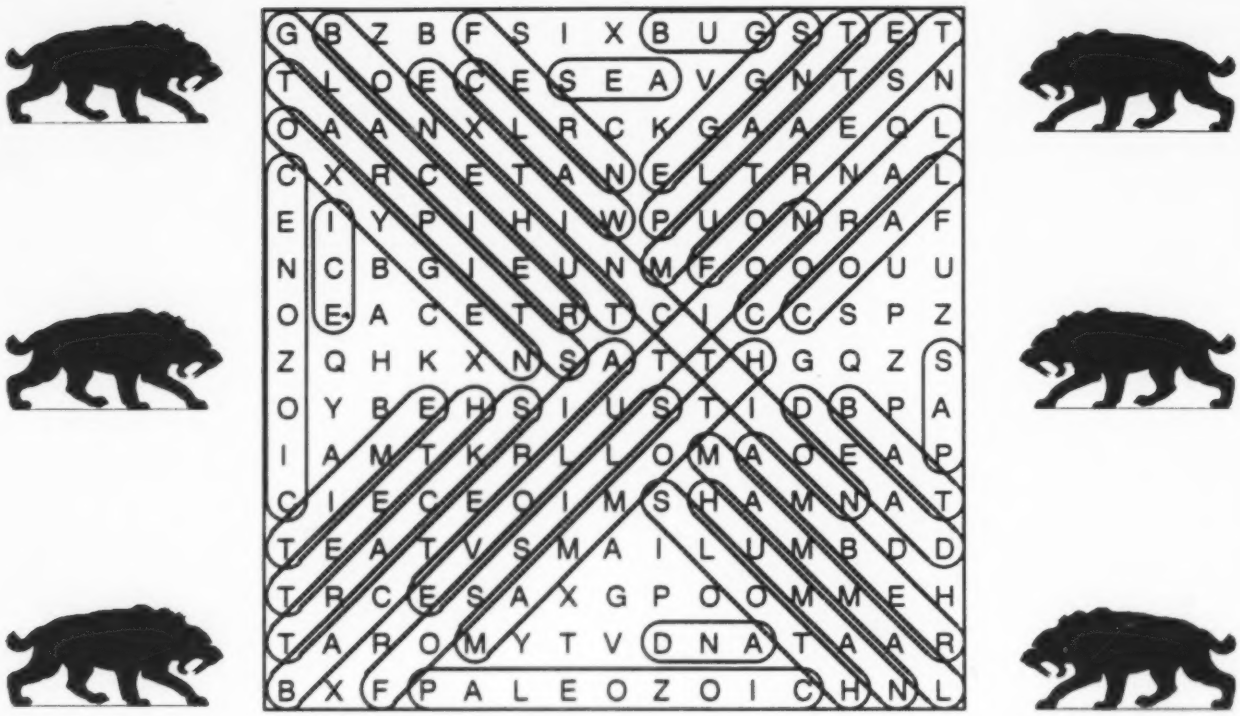
G	B	H	N	F	I	V	I	B	U	G	S	T	E	T
T	L	O	E	C	E	S	E	A	N	G	N	T	S	W
O	A	A	N	X	L	R	Y	J	G	A	A	E	U	L
C	X	R	C	E	T	A	N	E	L	T	R	R	A	L
E	I	Y	P	I	H	I	W	P	U	O	N	R	A	J
N	C	Z	G	I	E	U	N	M	F	O	O	O	C	F
O	E	P	E	E	T	R	T	C	I	C	C	V	J	U
Z	N	G	R	W	N	S	A	T	T	H	A	P	G	S
O	I	P	E	H	S	I	U	S	T	I	D	B	O	A
I	Q	M	T	K	R	L	L	O	M	A	O	E	A	P
C	I	E	C	E	O	I	M	S	H	A	M	N	A	T
T	E	A	T	V	S	M	H	M	L	U	M	B	L	D
T	R	C	E	S	A	Y	C	S	X	O	M	M	E	Y
T	A	Y	O	M	A	P	V	D	N	A	T	A	A	R
B	F	F	P	A	L	E	O	Z	O	I	C	H	N	L

Find the words in the puzzle and circle them.

AMBER	EGGS	MUTATE
BACTERIA	EVOLUTION	OXYGEN
BAT	EXTINCTION	PALEOZOIC
BONEHUT	FERN	PLANT
BUG	FOREST	SAP
CENOZOIC	FOSSILS	SEA
CLAW	GLACIER	SLOTH
COAL	HUMAN	TARPITS
CORAL	ICE	TEETH
DEAD	MAMMAL	TIME
DNA	MAMMOTH	TRACKS

PREHISTORIC WORD SEARCH

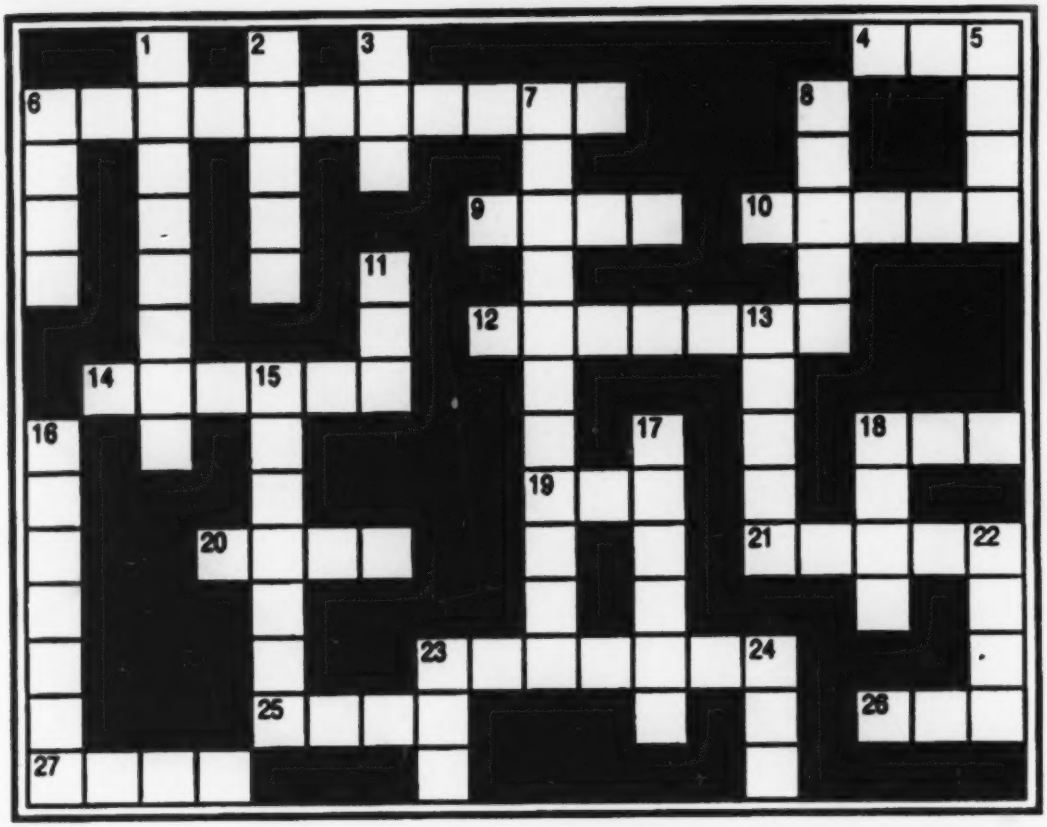
ANSWER KEY


G B Z B F S I X B U G S T E T
T L O E C E S E A V G N T S N
O A A N X L R C K G A A E O L
C X R C E T A N E L T R N A L
E I Y P I H I W P U O N R A F
N C B G I E U N M F O O O U U
O E A C E T R T C I C C S P Z
Z Q H K X N S A T T H G Q Z S
O Y B E H S I U S T I D B P A
I A M T K R L L O M A O E A P
C I E C E O I M S H A M N A T
T E A T V S M A I L U M B D D
T R C E S A X G P O O M M E H
T A R O M Y T V D N A T A A R
B X F P A L E O Z O I C H N L

Find the below in the puzzle and circle them.

AMBER
BACTERIA
BAT
BONEHUT
BUG
CENOZOIC
CLAW
COAL
CORAL
DEAD
DNA
EGGS
EVOLUTION
EXTINCTION
FERN
FOREST
FOSSILS
GLACIER
HUMAN
ICE
MAMMAL
MAMMOTH
MUTATE
OXYGEN
PALEOZOIC
PLANT
SAP
SEA
SLOTH
TARPITS
TEETH
TIME
TRACKS

PREHISTORIC CROSSWORD



Across

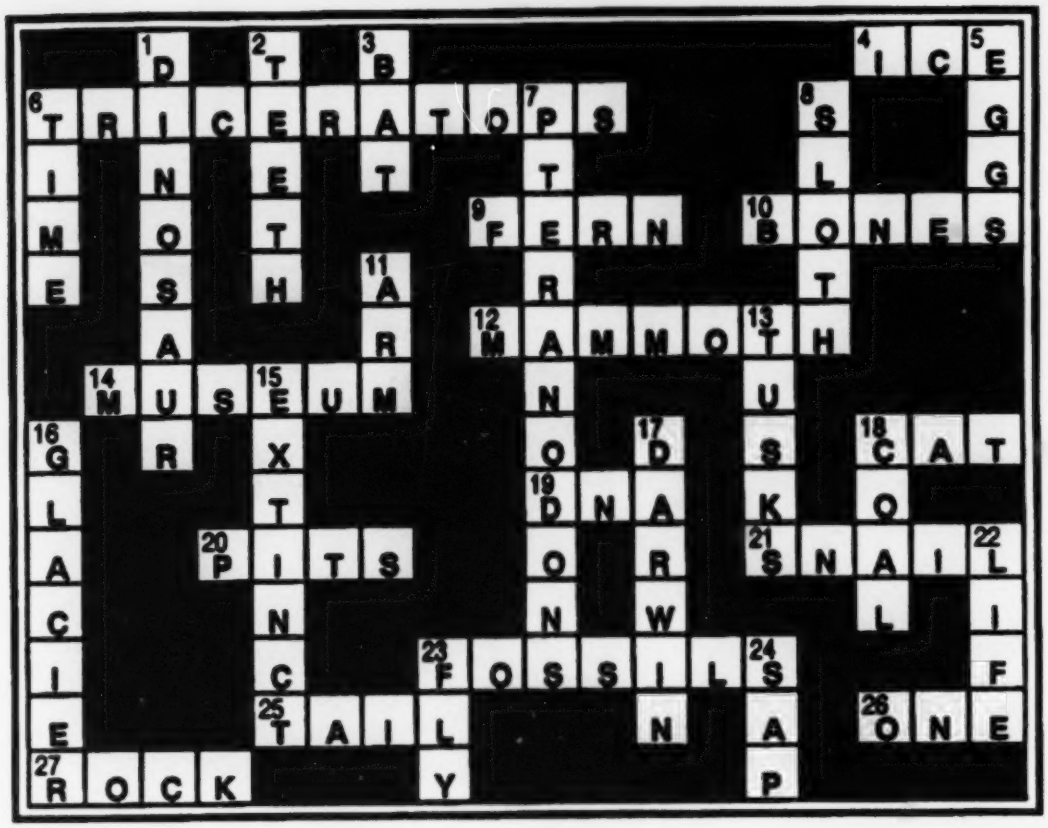
4. Frozen water covered much of the land during the _ _ _ Ages..
6. Three-horned dinosaur
9. Ancient leafy plant found in many homes
10. Skeletons are made of these.
12. Ancient elephant
14. Many fossils at The Field _ _ _ _ _ _.
18. Not really a saber tooth "tiger." It is a saber tooth _ _ _.
19. Makes up genes (**D**eoxyribo**N**ucleic **A**cid)
20. Some animals got stuck in tar _ _ _ _ and became fossils.
21. A slug with a shell
23. Evidence of ancient life
25. The *Apatosaurus* has a long _ _ _ _.
26. Number of tails on a *Brachiosaurus*
27. Fossils are found in _ _ _ _.

Down

1. "Terrible lizard"
2. Used for chewing
3. Flying mammal
5. Dinosaurs hatched from these.
6. Evolution occurs slowly over _ _ _ _.
7. These flying reptiles were not dinosaurs.
8. Large, slow moving animal
11. *Brachiosaurus* means _ _ _ lizard.
13. Long teeth on a mastodon
15. Completely died out
16. River of ice
17. Wrote about evolution
18. _ _ _ _ is made of fossil plants.
22. Exhibit at The Field Museum: _ _ _ _ Over Time
23. Large flying insect = dragon _ _ _
24. Amber is tree _ _ _ that has become a fossil.

PREHISTORIC CROSSWORD

ANSWER KEY


1 D
2 T
3 B
4 I C E
5 G
6 T R I C E R A T O P S
7
8 S
L
I N E T T G
M O T 9 F E R N 10 B O N E S
E S H 11 A R T
A R 12 M A M M O 13 T H
14 M U S 15 E U M N U
16 G R X O 17 D S 18 C A T
L T 19 D N A K O
A 20 P I T S O R 21 S N A I 22 L
C N N W L I
I C 23 F O S S I L 24 S F
E 25 T A I L N A 26 O N E
27 R O C K Y P

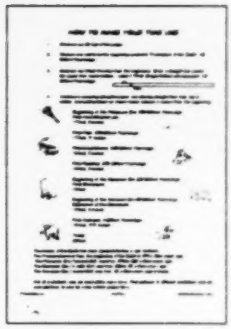
Across

4. Frozen water covered much of the land during the _ _ _ Ages.
6. Three-horned dinosaur
9. Ancient leafy plant found in many homes
10. Skeletons are made of these.
12. Ancient elephant
14. Many fossils at The Field _ _ _ _ _ _.
18. Not really a saber tooth "tiger." It is a saber tooth _ _ _.
19. Makes up genes (**D**eoxyribo**N**ucleic **A**cid)
20. Some animals got stuck in tar _ _ _ _ and became fossils.
21. A slug with a shell
23. Evidence of ancient life
25. The *Apatosaurus* has a long _ _ _ _.
26. Number of tails on a *Brachiosaurus*
27. Fossils are found in _ _ _ _.

Down

1. "Terrible lizard"
2. Used for chewing
3. Flying mammal
5. Dinosaurs hatched from these.
6. Evolution occurs slowly over _ _ _ _.
7. These flying reptiles were not dinosaurs.
8. Large, slow moving animal
11. *Brachiosaurus* means _ _ _ lizard.
13. Long teeth on a mastodon
15. Completely died out
16. River of ice
17. Wrote about evolution
18. _ _ _ _ is made of fossil plants.
22. Exhibit at The Field Museum: _ _ _ _ Over Time
23. Large flying insect = dragon _ _ _
24. Amber is tree _ _ _ that has become a fossil.

OUT OF TIME



SKILLS

- Sequencing
- Observation
- Measuring

IN BRIEF

Students complete a scale model of geologic time in the classroom.

GOAL

To show 4.5 billion years in a format that students can easily grasp and understand.

BACKGROUND

The concept that the Earth is 4.5 billion years old, that life has been around for 3.8 billion years, and the geologic time scale used by scientists can be difficult to understand. Saying that prehistoric animals lived "millions and millions" of years ago doesn't help much when a human life span averages 75 years. The numbers are just too big to imagine. Making a geologic time line can help us to visualize the lengths of time involved in the Earth's history.

DIRECTIONS

Copy the "How To Make Your Time Line" page for your students and have them follow the steps described. Students will need:

20 feet of calculator paper, shelf paper or newsprint paper. (Wider paper will give a mural appearance, but narrower paper will be easier to work with.)
Ruler or measuring tape.
Pen or pencil.

Create a display of student-created time lines in the classroom.

FOLLOW UP

Using the figures from "Just How Big Was That Animal?" have the students stretch string from the figures to the proper time on the time line.

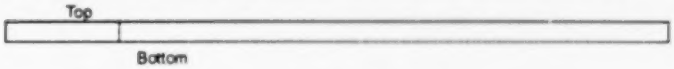
BEST COPY AVAILABLE

HOW TO MAKE YOUR TIME LINE

1. Measure out 20 feet of the paper.

2. Choose one end to be the beginning and write "**Formation of the Earth: 4.5 Billion Years Ago.**"

3. Measure out 5 feet 9 inches from the beginning. Draw a straight line across the paper from top to bottom. Label it "**First Single-Celled Life Appears: 3.5 Billion Years Ago.**"



4. Continue measuring along the paper and placing straight lines from top to bottom and adding labels as shown below (always measure from the beginning):

Beginning of the Paleozoic Era: 570 Million Years Ago
First Hard-Shelled Life
17 feet, 6 inches

First Fish: 470 Million Years Ago
17 feet, 11 inches

First Amphibians: 345 Million Years Ago
18 feet, 6 inches

First Reptiles: 275 Million Years Ago
18 feet, 9 inches

Beginning of the Mesozoic Era 225 Million Years Ago
First Dinosaurs
19 feet

Beginning of the Cenozoic Era 65 Million Years Ago
Extinction of the Dinosaurs
19 feet, 9 inches

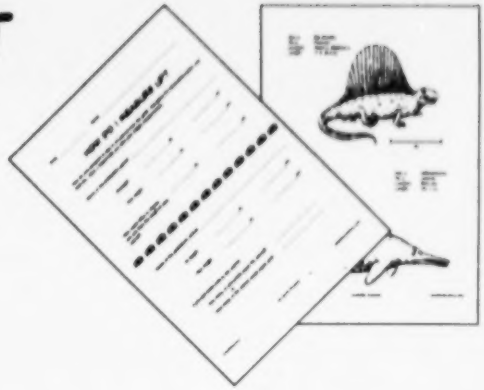
First Humans: 3 Million Years Ago
19 feet, $11^{7/8}$ inches

Today
20 feet

The history of the Earth has been divided into four major sections.
The Precambrian was from the beginning of the Earth to 570 million years ago.
The Paleozoic Era ("ancient life") was from 570 to 225 million years ago.
The Mesozoic Era ("middle life") was from 225 to 65 million years ago.
The Cenozoic Era ("recent life") was from 65 million years ago to today.

Not all prehistoric animals lived at the same time. Find pictures of different prehistoric animals and add them to your time line in their proper time.

HOW BIG WAS THAT ANIMAL?



SKILLS

- Scaling
- Formulating models
- Observing

IN BRIEF

Students draw life-size prehistoric animals in the classroom and compare their relative sizes.

GOAL

For students to see that prehistoric animals came in a variety of sizes.

BACKGROUND

Students often have the image that all prehistoric animals were very large. While many were, there were many that weren't. The ecological niches that can be found today can also be found in the past. Like the animals of today, prehistoric animals came in a variety of sizes and filled all the different niches available to them.

DIRECTIONS

Make an overhead transparency of a prehistoric animal from the figures provided.

Use kraft paper or tape together a number of sheets of paper to create a poster big enough to hold the actual size of the animal.

Project the image of the animal onto the paper with an overhead projector.

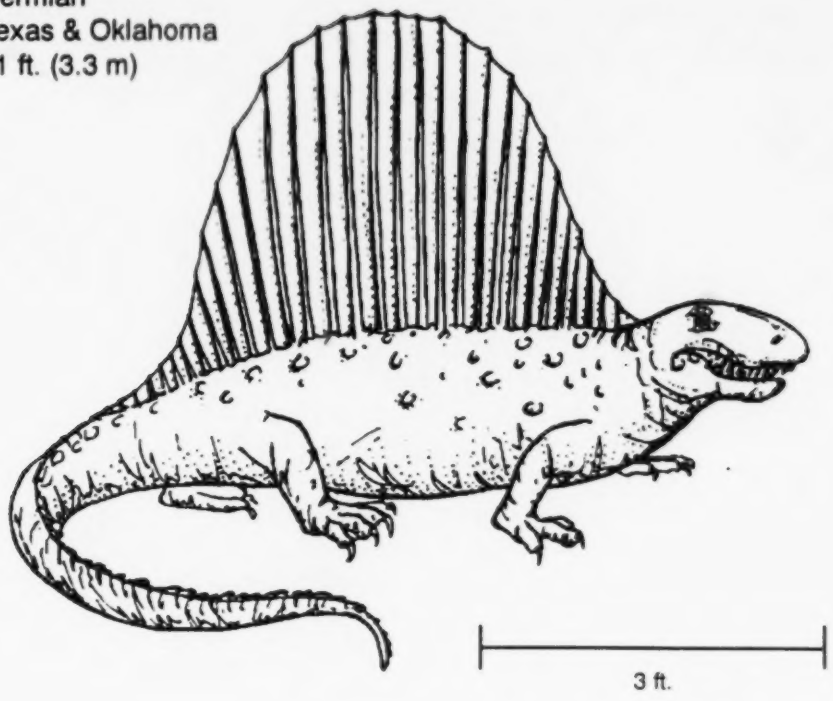
Adjust the distance between the overhead projector and the paper until the image is the animal's actual size. The unit length of the scale bar with the figure should be used when projected.

Trace the image onto the paper.

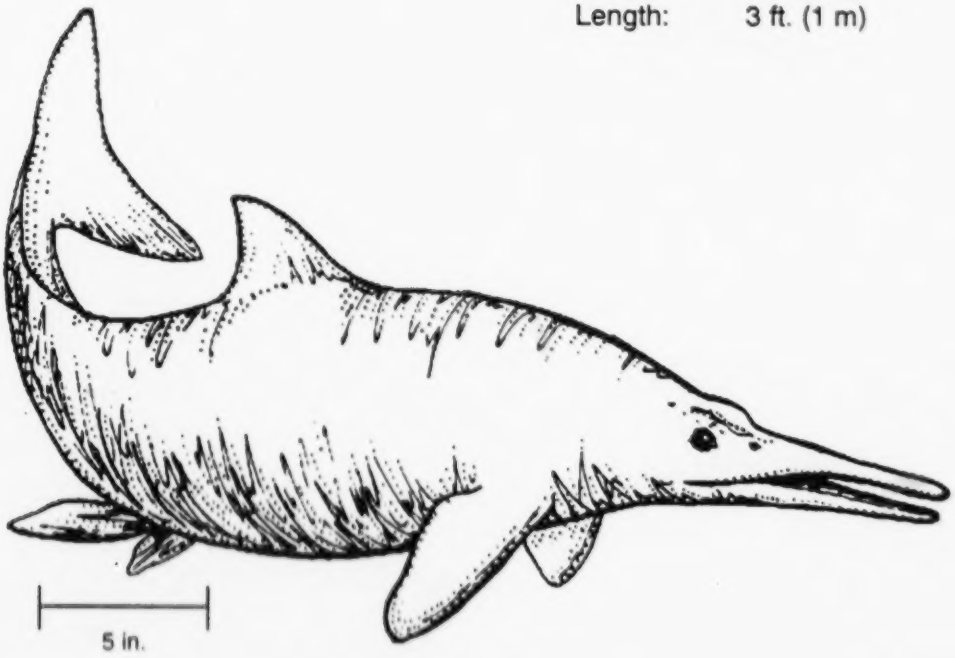
Have the students color in the animal. Encourage them to be creative in their choices. They may wish to draw and color a background scene on the remaining paper or add animals of the same time period to it.

Working as individuals or in a group, have the students complete the "How Do I Measure Up?" activity sheet.

Name: Dimetrodon
Time: Permian
Location: Texas & Oklahoma
Length: 11 ft. (3.3 m)

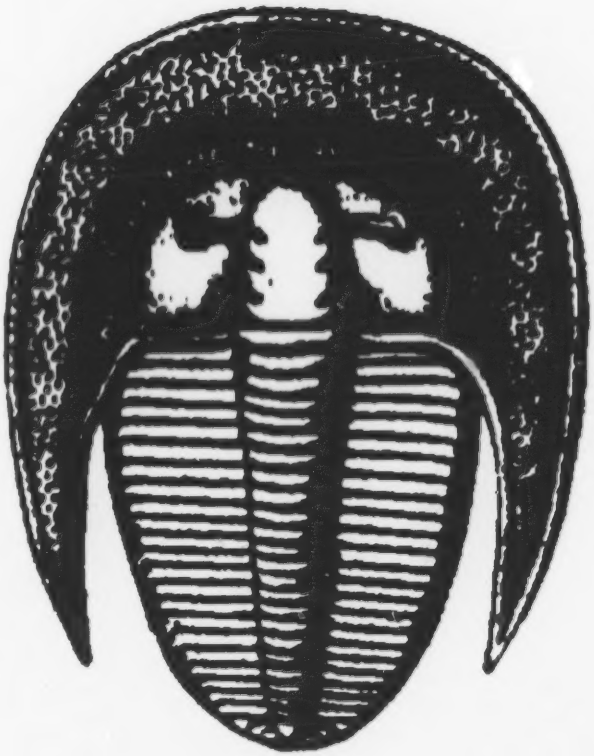


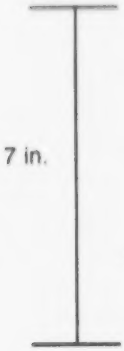
Name: Ichthyosaurus
Time: Jurassic
Location: Germany
Length: 3 ft. (1 m)



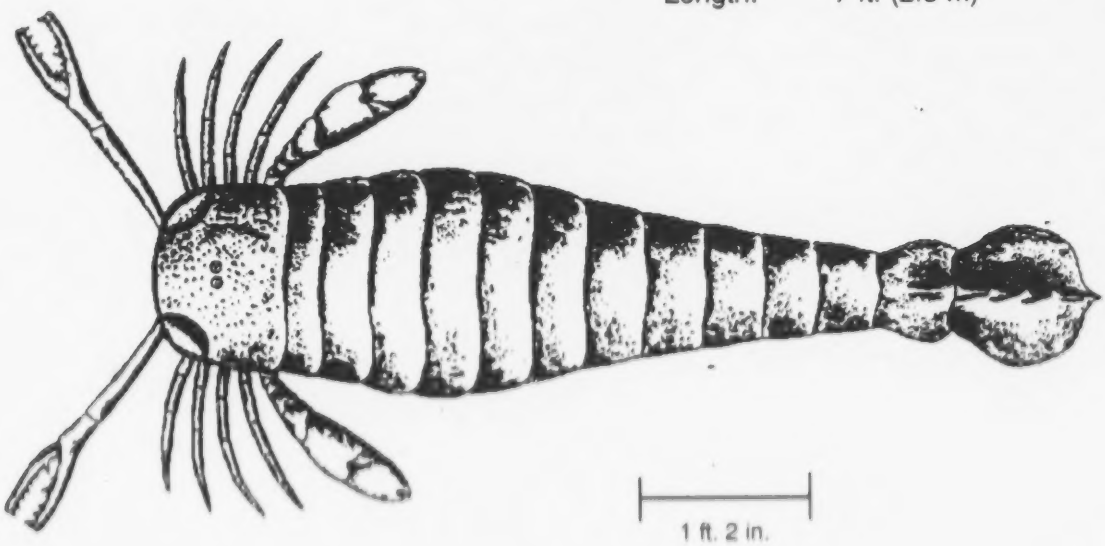
© The Field Museum

Name: Trilobite
Time: Ordovician
Location: Ohio
Length: 17 in. (43 cm)

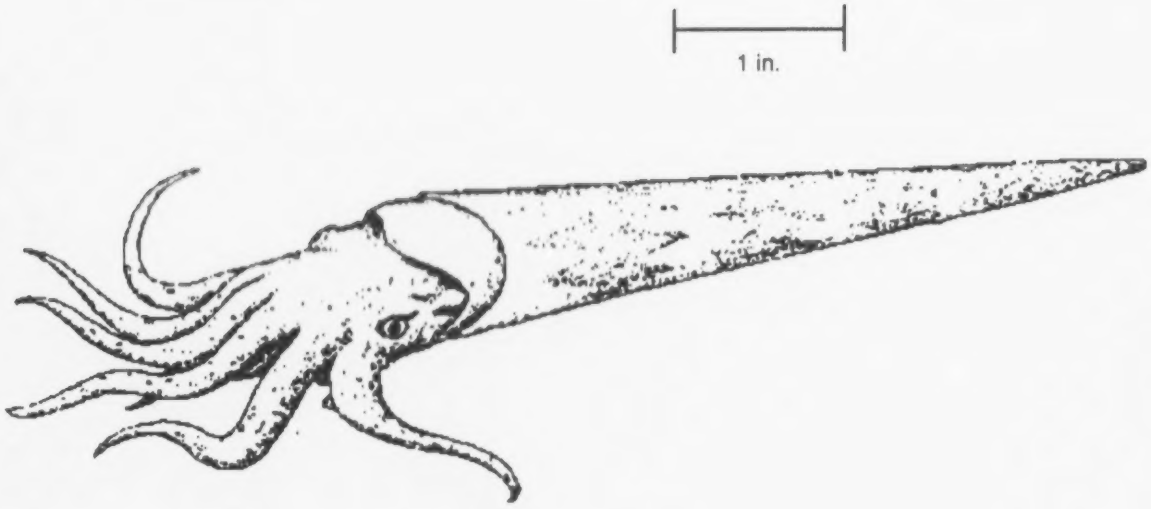




Name: Eurypterid
Time: Silurian
Location: New York
Length: 7 ft. (2.3 m)

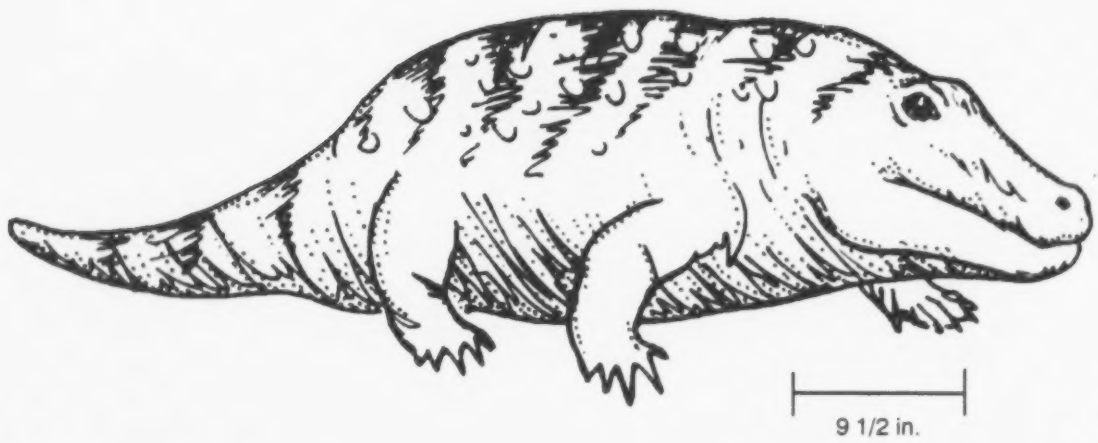


Name: Nautiloid
Time: Silurian
Location: New York
Length: 6 in. (15 cm)



Name: Castoroides (Beaver)
Time: Pleistocene
Location: North America
Length: 7 ft. 6 in. (2.3 m)

Name: Eryops
Time: Permian
Location: Texas
Length: 5 ft. (1.5 m)



Name: Smilodon (sabre-tooth cat)
Time: Late Pliocene - Pleistocene
Location: North & South America
Length: 5 ft. (1.5 m)

Date _____ Name _____

HOW DO I MEASURE UP?

How do you compare in size to an animal from the past? Complete the information below and find out. Have a friend help you take your height measurement.

Name of the prehistoric animal _____

Its length	_____in.	_____cm
Your height	_____in.	_____cm
How much taller or shorter are you than the length of your animal?	_____in.	_____cm

Name of the prehistoric animal _____

Its length	_____in.	_____cm
Your height	_____in.	_____cm

If you laid down next to this animal

how many of you would equal the animal? _____

or

how many of the animal would equal you? _____

MUSEUM VISIT JOURNAL

SKILLS

- Questioning
- Observing
- Inferring

IN BRIEF

Students complete this journal as they tour the Life Over Time exhibit at The Field Museum.

GOAL

To focus students on the Life Over Time exhibit and enhance their museum experience.

BACKGROUND

Museum visits often become just a day away from school for students. Students get more from their visit if they are focused on one topic or exhibit at the Museum. Use the journal to get the students to focus on elements in the Life Over Time exhibit and enhance their personal experience.

DIRECTIONS

Copy the journal back-to-back. Have the students fold the journal according to the directions on the sheet. As they go through the exhibit, have them fill in their journal.

BEST COPY AVAILABLE

THE FIELD MUSEUM

Name _____

Date _____

School _____

As you enter the Life Over Time exhibit, help count to 1,000,000,000 (one billion) by turning the crank.

What was the number before you began?

_____

What was the number after you finished?

_____

Second Fold -side to side-

Notes About My Visit

Coal Forest

There are many different types of plants and animals in this diorama. Look around the underbrush and in the trees and list two that you recognize.

_____

_____

Herrerasaurus

Write five words to describe the Herrerasaurus.

Example: predator

1. _____
2. _____
3. _____
4. _____
5. _____

Sabre tooth Cat

Write five words to describe the Sabre tooth Cat. Do not use the same words that you used to describe the Herrerasaurus.

1. _____
2. _____
3. _____
4. _____
5. _____

First Fold -top to bottom-

Bone Hut

List two ways that your home is like the bone hut.

1. _____
2. _____

List two ways that your home is different from the bone hut.

1. _____
2. _____

In My Opinion

My favorite dinosaur was

_____

My favorite mammal was

_____

What I liked most was

_____

I would show my best friend the

_____

What I would add to the exhibit is

_____

© The Field Museum

WHERE WAS THAT FOSSIL FOUND?

SKILLS

- Mapping
- Observing
- Inferring

IN BRIEF

Students locate the states where different fossils in the Life Over Time exhibit were collected.

GOAL

To show that fossils have been discovered all across the United States.

BACKGROUND

Fossils have been found all over the world and in every state in our nation. Scientists who collect fossils record the exact location where they are found and as much information as they possibly can about the collecting site. This allows future generations to revisit the site and collect more information and specimens.

The location where a fossil was collected is often added to its label in the exhibit. This allows the Museum visitor the opportunity to learn about the fossil resources in their region.

DIRECTIONS

Review with your students the locations and names of the states. Copy the map of the United States for the students to use during their visit. As they go through the exhibit, have them determine the states from which different fossils were collected by reading the labels of the fossils on display. They can do one or more of the following:

Find a fossil for each state (or just a few in a particular region) and print the name of the fossil within the borders of that state (or nearby and draw a line to the state).

Determine which state has the most different types of fossils in the exhibit by making a mark in the state for each different type that they find (e.g., ~~𝍸~~).

Determine in which states dinosaur fossils are found.

© The Field Museum

WHERE WAS THAT FOSSIL FOUND?

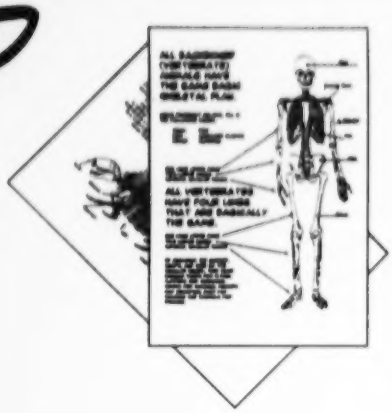
Name _____

Date _____

Map of the contiguous 48 states.

BEST COPY AVAILABLE

OLD BONES AND YOU



SKILLS

- Identifying
- Inferring
- Interpreting
- Labeling

IN BRIEF

Students identify and color the same bones in the skeletal diagrams of different vertebrates.

GOAL

To understand that all vertebrate animals have the same general skeletal design and that this similarity is the result of evolution from a common ancestor.

BACKGROUND

The first fish with backbones (the first "vertebrates") appeared about 500 million years ago. About 350 million years ago a group of "lobe-finned" prehistoric fish evolved legs from fins and became amphibians. The general fish plan of skull, backbone, and tail remained, but the new feature - -limbs-- led to survival on land. This basic skeletal plan can be seen in all the vertebrates that evolved after that first pioneer. This similarity helps scientists trace the ancestry of vertebrates back in time and to understand where evolutionary change has occurred.

DIRECTIONS

Before visiting the Life Over Time exhibit at The Field Museum, have the students color the same bones on each diagram the same color. Have the students bring the completed diagrams with them to the Museum and compare their work to the actual skeletons in the exhibit.

Please note: Due to the view drawn of each skeleton, not all bones are visible. Therefore some skeletons have more bones labeled than others.

FOLLOW UP

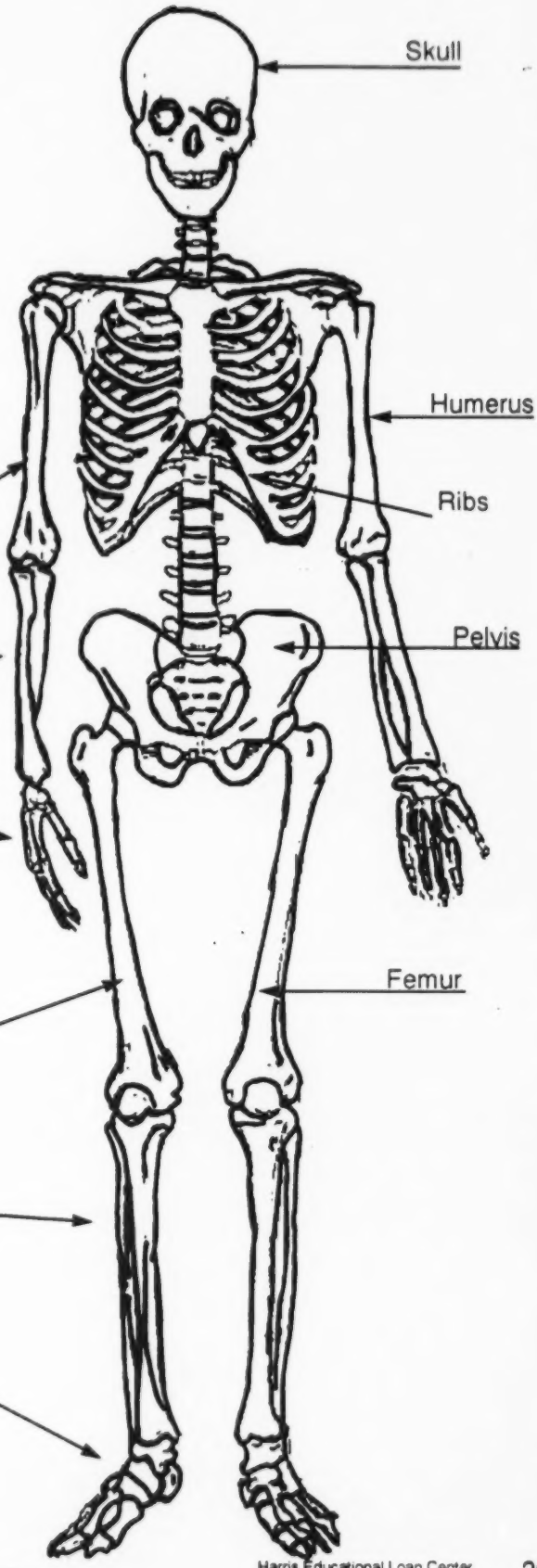
Have students look at the skeletons of other vertebrates either at The Field Museum (Animal Kingdom exhibits) or in text books and discover other similarities and differences in skeletal design.

BEST COPY AVAILABLE

ALL BACKBONED (VERTEBRATE) ANIMALS HAVE THE SAME BASIC SKELETAL PLAN.

Using colored pencils, fill in the following bones:

Skull	(red)	Ribs	(brown)
Pelvis	(blue)	Femur	(green)
Humerus	(black)		



one long upper bone
two lower bones
several smaller bones

ALL VERTEBRATES HAVE FOUR LIMBS THAT ARE SIMILAR IN STRUCTURE.

one long upper bone
two lower bones
several smaller bones

By changing the number, shape, and size of the smaller bones, they have become wings for flying, flippers for swimming, hooks for hanging, fingers for grasping, feet for walking and shovels for digging.

© The Field Museum

© The Field Museum

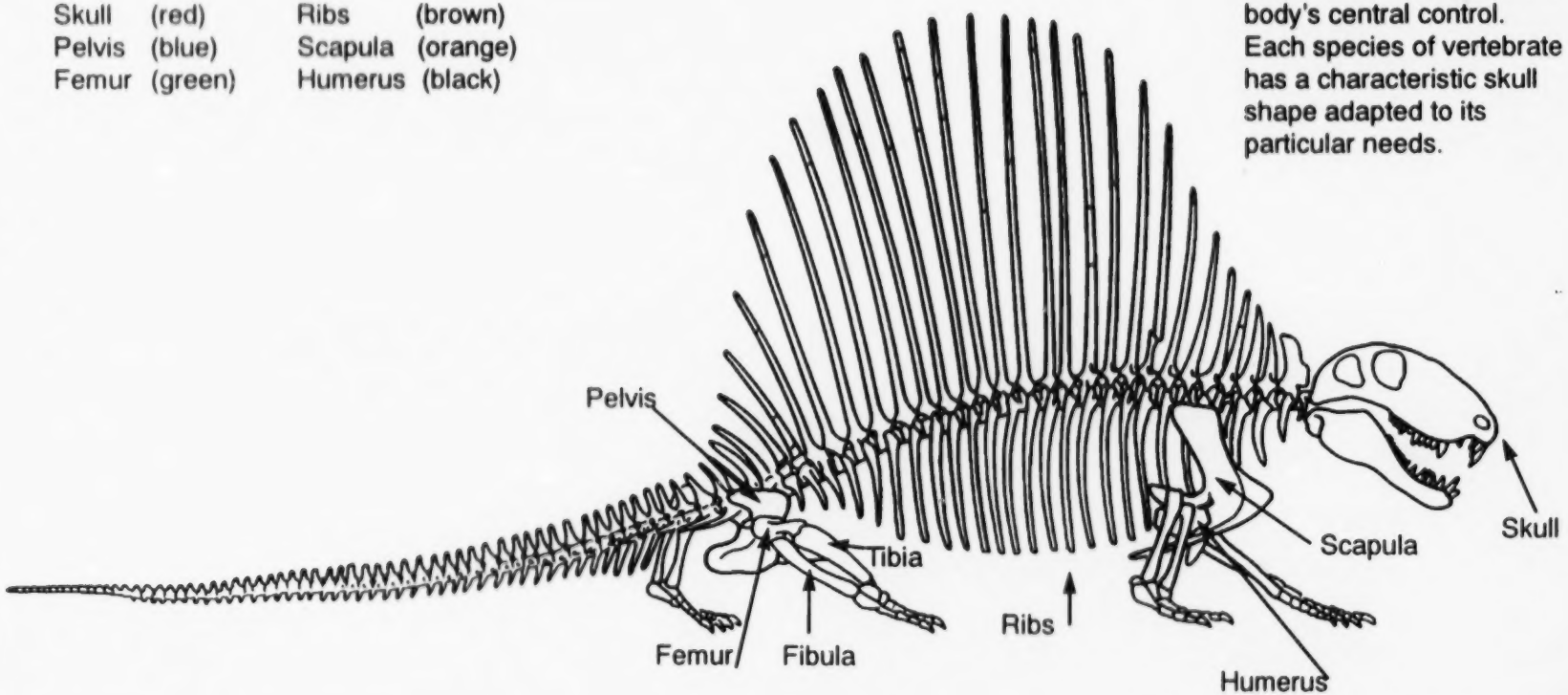
ALL BACKBONED (VERTEBRATE) ANIMALS HAVE THE SAME BASIC SKELETAL PLAN.

Using colored pencils, fill in the following bones:

Skull	(red)	Ribs	(brown)
Pelvis	(blue)	Scapula	(orange)
Femur	(green)	Humerus	(black)

THE SKULL PROTECTS THE BRAIN

The skull is at one end of of the body and it protects the brain, which serves as the body's central control. Each species of vertebrate has a characteristic skull shape adapted to its particular needs.



Dimetrodon

© The Field Museum

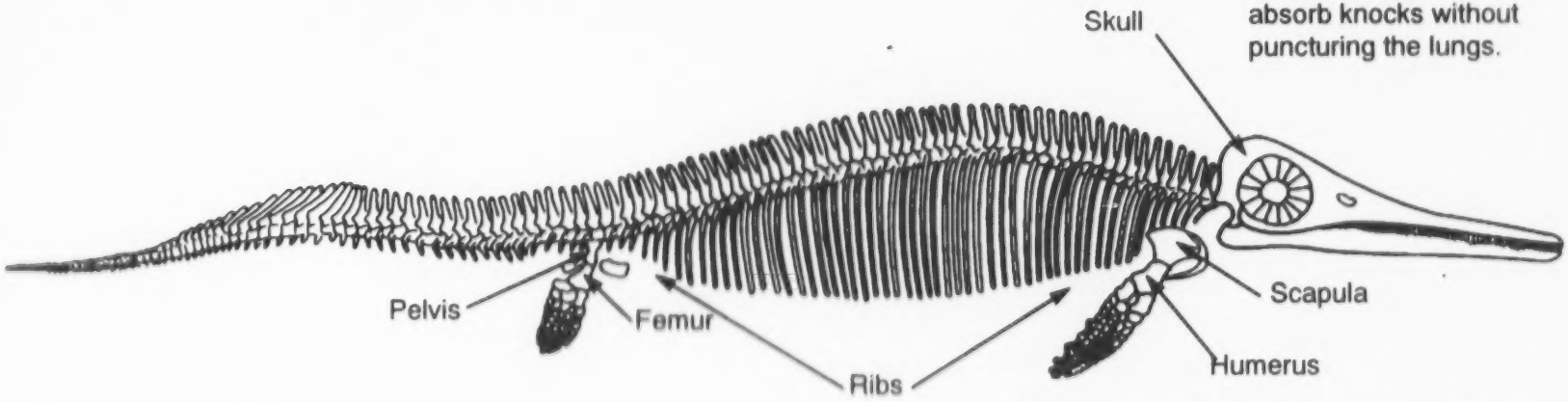
ALL BACKBONED (VERTEBRATE) ANIMALS HAVE THE SAME BASIC SKELETAL PLAN.

Using colored pencils, fill in the following bones:

Skull	(red)	Ribs	(brown)
Pelvis	(blue)	Scapula	(orange)
Femur	(green)	Humerus	(black)

RIBS PROTECT VITAL ORGANS

The ribs protect the lungs and other organs in the chest, such as the heart and main blood vessels. Each rib is long and flexible so that it can absorb knocks without puncturing the lungs.



27

Ichthyosaurus

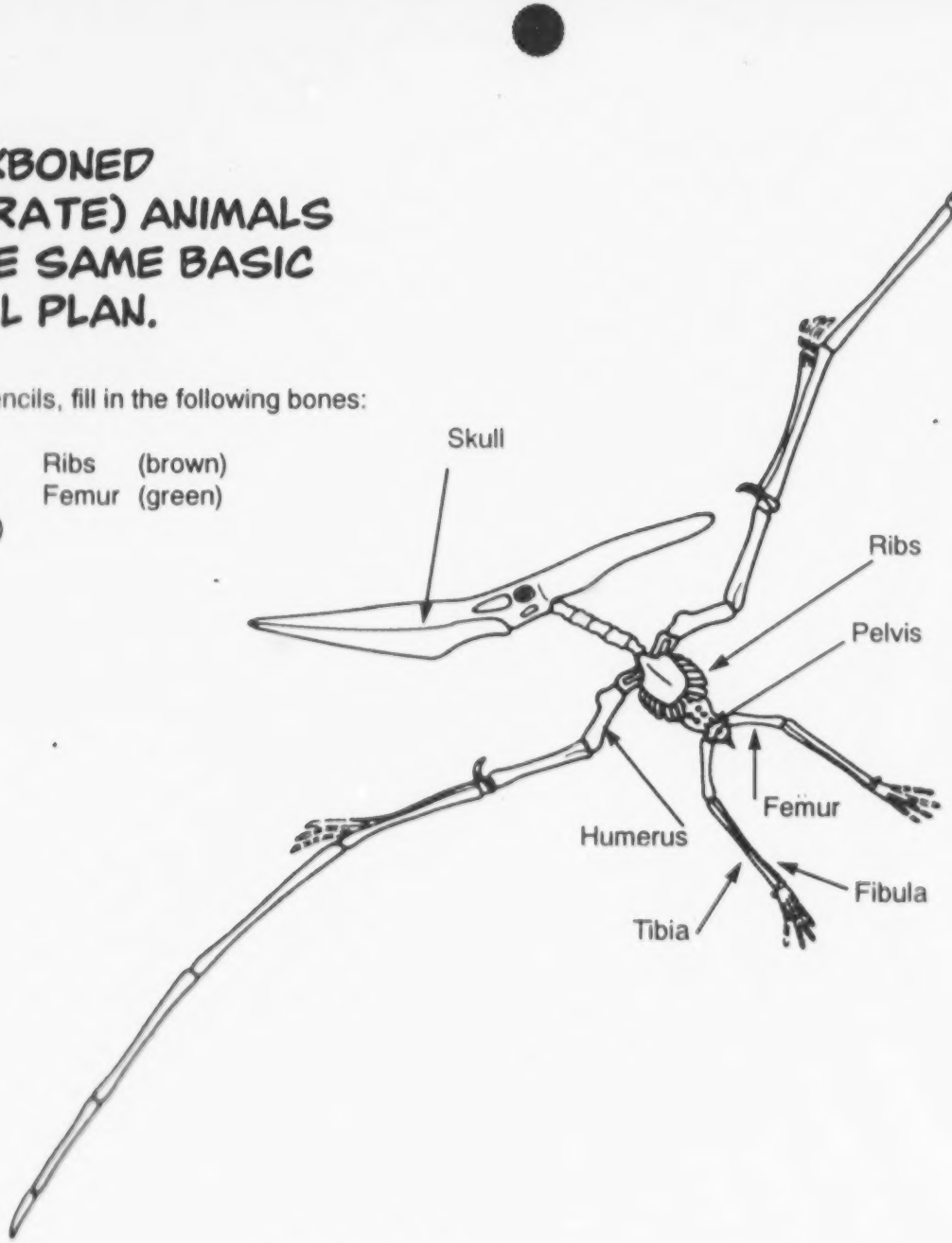
28

© The Field Museum

ALL BACKBONED (VERTEBRATE) ANIMALS HAVE THE SAME BASIC SKELETAL PLAN.

Using colored pencils, fill in the following bones:

Skull	(red)	Ribs	(brown)
Pelvis	(blue)	Femur	(green)
Humerus	(black)		



LIMBS EVOLVE TO FIT A WAY OF LIFE

By changing the number, shape, and size of the smaller bones at the end of the limbs, they have become wings for flying, flippers for swimming, hooks for hanging, fingers for grasping, feet for walking and shovels for digging. In this animal the wings were supported mainly by long, thin finger bones like those of bats today.

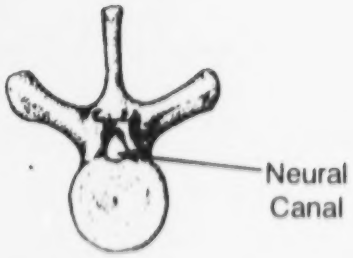
Pteranodon

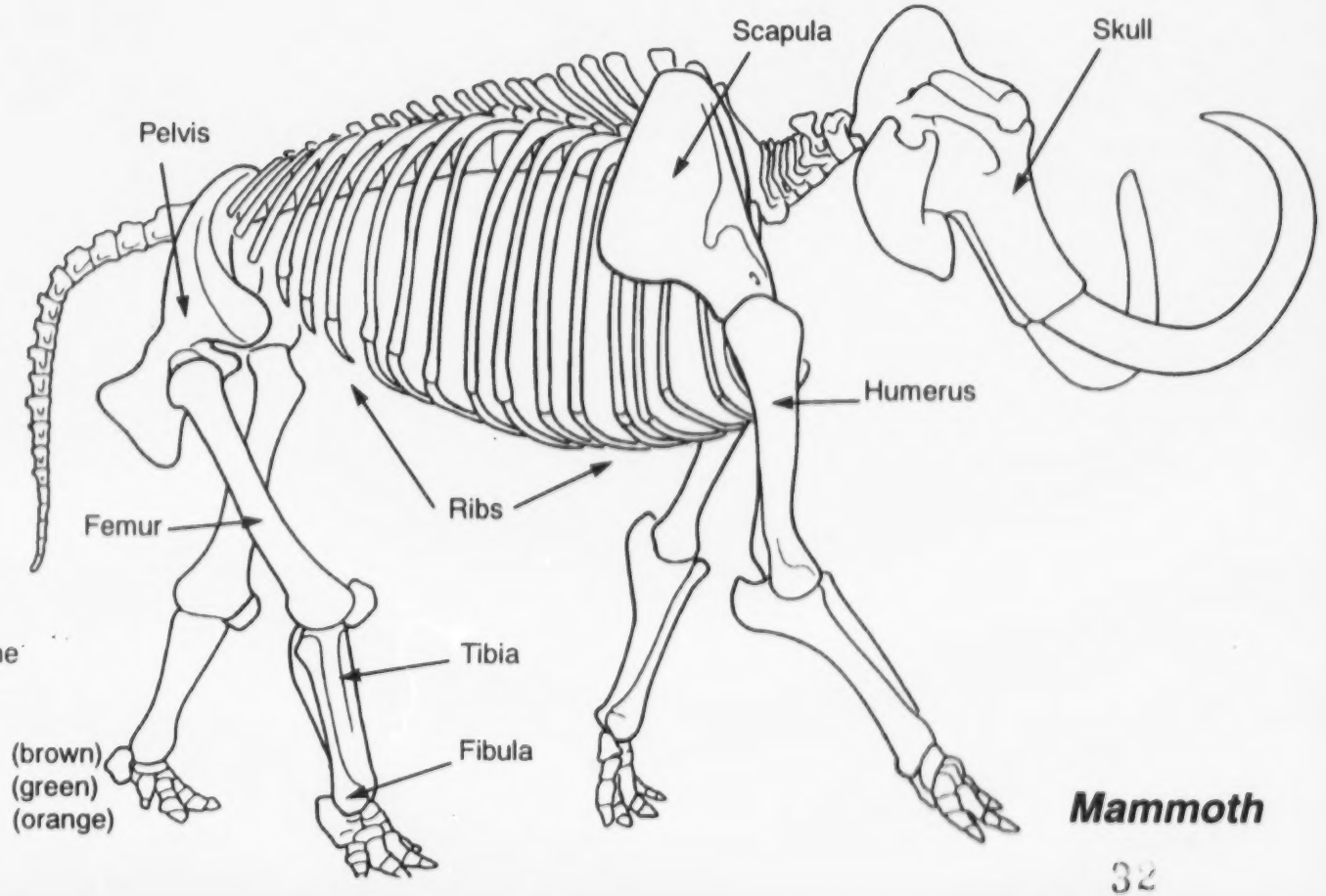
© The Field Museum

ALL BACKBONED (VERTEBRATE) ANIMALS HAVE THE SAME BASIC SKELETAL PLAN.

THE SPINE PROTECTS

Every fish, reptile, amphibian, bird and mammal has a row of bones in its back. This is the feature that groups them together as vertebrates (animals with backbones or vertebrae). Holes in each vertebra line up to form a boney tunnel. Inside this well-protected tunnel is the delicate spinal cord.



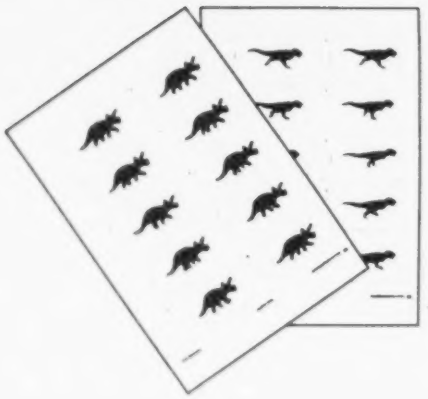


Using colored pencils, fill in the following bones:

Skull	(red)	Ribs	(brown)
Pelvis	(blue)	Femur	(green)
Humerus	(black)	Scapula	(orange)

Mammoth

PREHISTORIC MOTION



SKILLS

- Sequencing
- Observation

IN BRIEF

Students complete a flipbook showing two prehistoric animals in motion.

GOAL

To recreate an exhibit element in the classroom.

BACKGROUND

The zoetropes in the Life Over Time exhibit at The Field Museum animate the motion of three dinosaurs and two mammals. Zoetropes use the concept of animation. An animal appears to be put in motion when you flip quickly through a series of drawings, each slightly different from the previous one. This is the technique used to make animated cartoons..

DIRECTIONS

Copy the image pages onto heavy paper.

Give one complete series to each student.

Have students cut and assemble the cards in order with #1 first and # 20 last.

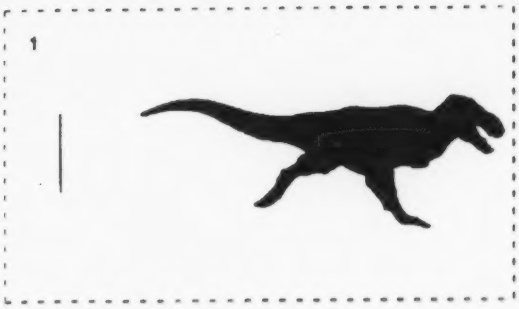
Staple the cards together at the location indicated on the front card.

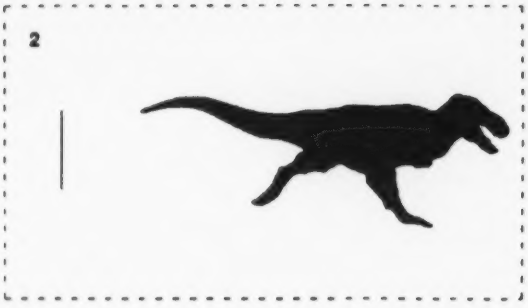
Flip through the cards to achieve motion.

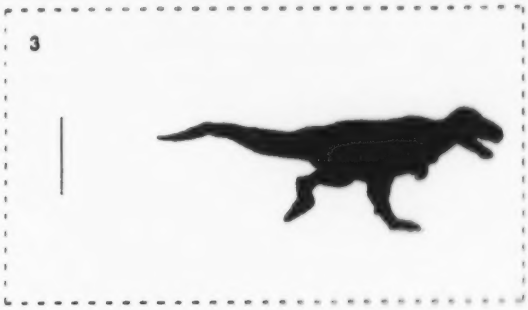
FOLLOW UP

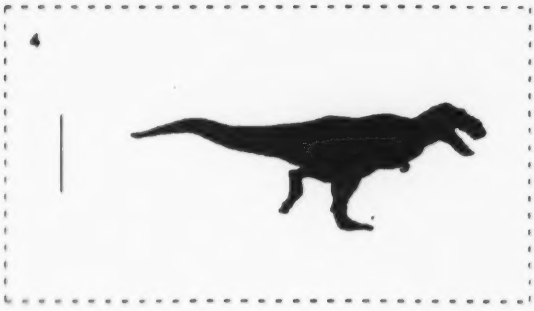
Have the students complete the flipbooks before their visit to the Museum and compare their results with the zoetropes in the exhibit.

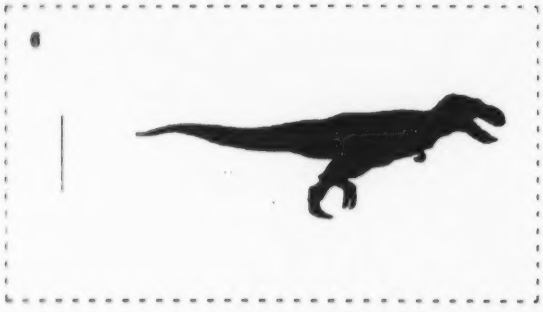
© The Field Museum

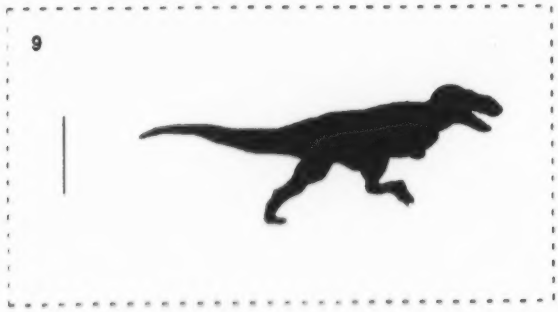


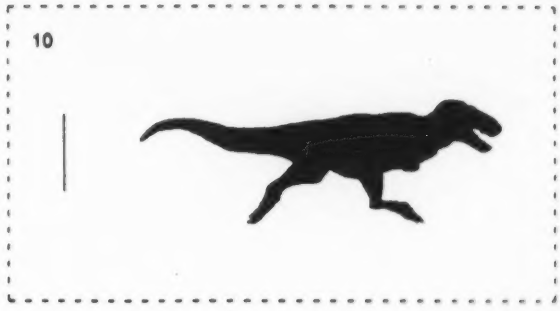












© The Field Museum

11

12

13

14

15

16

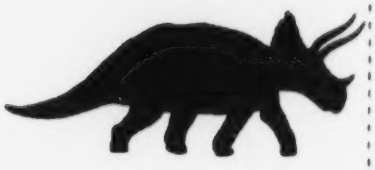
17

18

19

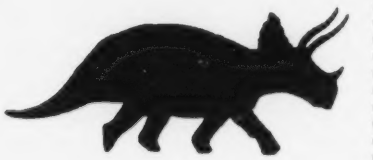
20

1



2

3



4

5

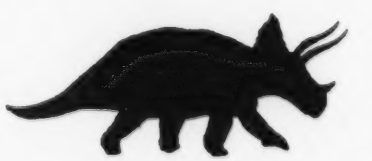
6

7

8

9

10



© The Field Museum

11

12

13

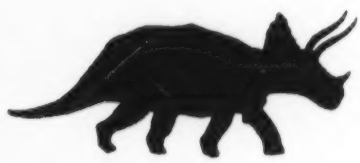
14

15

16

17

18



19

20

© The Field Museum

READ MORE ABOUT LIFE OVER TIME

For the young reader

Aliki. Digging Up Dinosaurs. New York: Harper & Row, 1981.

Aliki. Fossils Tell of Long Ago. New York: Crowell, 1972.

Arnold, Caroline. Trapped-In-Tar: Fossils from the Ice Age. New York: Clarion Books-Houghton Mifflin Co., 1987.

Berenstain, Michael. The Biggest Dinosaur. New York: Western Publishing Co., 1989.

Carrick, C. Patrick's Dinosaur. New York: Clarion Books, 1983.

Horner, R. John & James Gorman. Maia: A Dinosaur Grows Up. Bozeman: Museum Of The Rockies, 1985.

Horner, John R. & Don Lessem. Digging Up Tyrannosaurus Rex. New York: Crown Publishers, Inc., 1992.

Lauber, P. The News About Dinosaurs. Bradbury Press, 1989.

Lauber, P. Dinosaurs Walked Here. New York: Macmillan. 1992.

Most, Bernard. If the Dinosaurs Came Back. Harcourt Brace Jovanovich, 1978.

O'Neill, Mary. Where Are All the Dinosaurs? Mahwah, New Jersey: Troll Associates, 1989.

Ranger Rick's Dinosaur Book. Washington D.C.: National Wildlife Foundation, 1984.

Sattler, Helen Roney. Baby Dinosaurs. New York: Lothrop, Lee, and Shepard Books, 1984.

Giants from the Past. National Geographic Society, 1983.

For the general reader

Benton, Michael. On the Trail of the Dinosaurs. London: Grisewood & Dempsey, 1989.

Chicago's Dinosaurs at The Field Museum. Chicago: Field Museum of Natural History, 1994.

Horner, John R. & James Gorman. Digging Dinosaurs. New York: Workman Publishing, 1988.

Horner, John R. & Don Lessem. The Complete T. rex. New York: Simon & Schuster, 1993.

Kricher, John C. Dinosaurs: Peterson First Guide. Boston: Houghton Mifflin, 1990.

Lambert, David. A Field Guide to Prehistoric Life. Facts on File, 1985.

Lambert, David. A Field Guide to Early Man. Facts on File, 1987.

Lambert, David. The Dinosaur Data Book. Avon Books, 1990.

Norman, David. The Illustrated Encyclopedia of Dinosaurs. New York: Crescent Books, 1985.

Norman, David & Angela Milner. Eyewitness Books: Dinosaur. New York: Alfred A. Knopf, 1989.

Sattler, Helen Roney. Dinosaurs of North America. New York: Lothrop, Lee, and Shepard Books, 1985.

Wilford, John Noble. The Riddle of the Dinosaur. New York: Alfred A. Knopf, 1985.

For the teacher

Ranger Rick's NatureScope: Digging Into Dinosaurs. Washington, D.C.: National Wildlife Federation, 1984.

Resource Guide to Discovering Dinosaurs. Philadelphia: The Academy of Natural Science, 1985.

Schatz, Dennis. Dinosaurs: A Journey Through Time: A Children's Activity Book with Adult Teaching Guide. Seattle: Pacific Science Center, 1987.

VanCleave, Janice. Janice VanCleave's Dinosaurs for Every Kid: Easy Activities that Make Learning Science Fun. New York: John Wiley & Sons, Inc, 1994.

West, Linda. Dinosaurs and Dinosaur National Monument: A Resource Packet for Students and Teachers. Jensen, Utah: Dinosaur Nature Association, 1985.

© The Field Museum